

REMARKS

In the Office Action, the Examiner has rejected all claims for being unpatentable in view of various combinations of references.

In response to the Office Action, Applicant has amended the independent claims (i.e. claims 1 and 14) to require that each aircraft panel be mounted on a support structure to maintain a form for the panel. Further, all claims now require that each panel be made of a low-ductility composite material (i.e. a material that is impact-sensitive). With this structure, the claims have also been amended to require that a mechanical impact against the supported panel will cause a visible change on the panel. Support for these amendments is found in the specification at paragraphs [0008], [0036] and [0037]. Claim 2 has been cancelled.

Amendments to the claims have been made to improve their readability, to more clearly define the structure of the present invention, and to point out the features which distinguish this invention over the cited art. Claims 1, 3-5, 9-19 and 25 remain pending.

Rejections under 35 USC § 103

Claims 1, 3-5 and 9-13 have been rejected for being unpatentable over Chang (5,605,873) in view of Ross (RE39044). Also, claims 2, 14-19 and 25 have been rejected for being unpatentable over Change (sic.) and Ross as applied to claims 1, 3-5 and 9-13, and further in view of Szweda et al (5,488,017) and Carper et al (7,090,894).

Unlike the disclosures of the cited references, claims for the present invention now clearly require aircraft panels having a specified structure. For one, these panels are made of an impact-sensitive, low-ductility composite material. Further, the claims require the panels be covered with an indicator ink. Importantly, each panel must be mounted on a support structure that will substantially maintain a form for the panel (i.e. the skin of an aircraft). Structurally, the consequence of these specific claim limitations is that each panel of composite material is held substantially rigid. It is in the context of this structure that the indicator ink provides a visible change in response to a mechanical impact.

Although the present invention provides for an aircraft panel that will indicate when an adverse impact has occurred, the real purpose here is not to complete a process. Rather, it is to prevent further conduct of a process. This functionality is quite different than the functionality of any disclosure of the cited references. More specifically, the motivation for inventions disclosed in the cited references is to use the visual transformation of an ink for the purpose (function) of completing a process (e.g. verification). In contrast, rather than complete a process, the motivation for the present invention is to stop a process (e.g. stop or correct the manufacture of an aircraft having known damages, or proscribe the operational use of a damaged aircraft). Further, in addition to a different functionality, the way in which the present invention functions is different from that of the disclosures of the cited references. As now claimed, an aircraft panel of the present invention must be held substantially rigid. Consequently, it will

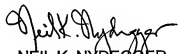
respond to a mechanical impact in a different way than will an unsupported substrate as contemplated in the disclosures of the cited references. In sum, none of the cited references either teach or suggest a structure or cooperation of structure as now claimed for the present invention.

The references cited by the Examiner, but not relied on for the rejection of claims, have been noted.

In conclusion, Applicant respectfully asserts that claims 1, 3-5, 9-19 and 25 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 619-688-1300 for any reason that would advance the instant application to issue.

Dated this 15th day of May, 2009.

Respectfully submitted,



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